



# Improving Upstream Accuracy

Research Proposal

March 13<sup>th</sup> & 14<sup>th</sup> - Madrid

# The Problem of Inaccurate Records

Lost Sales

Store Hours  
to "Fix"

Inefficiencies (too  
much/little inventory  
or wrong time)

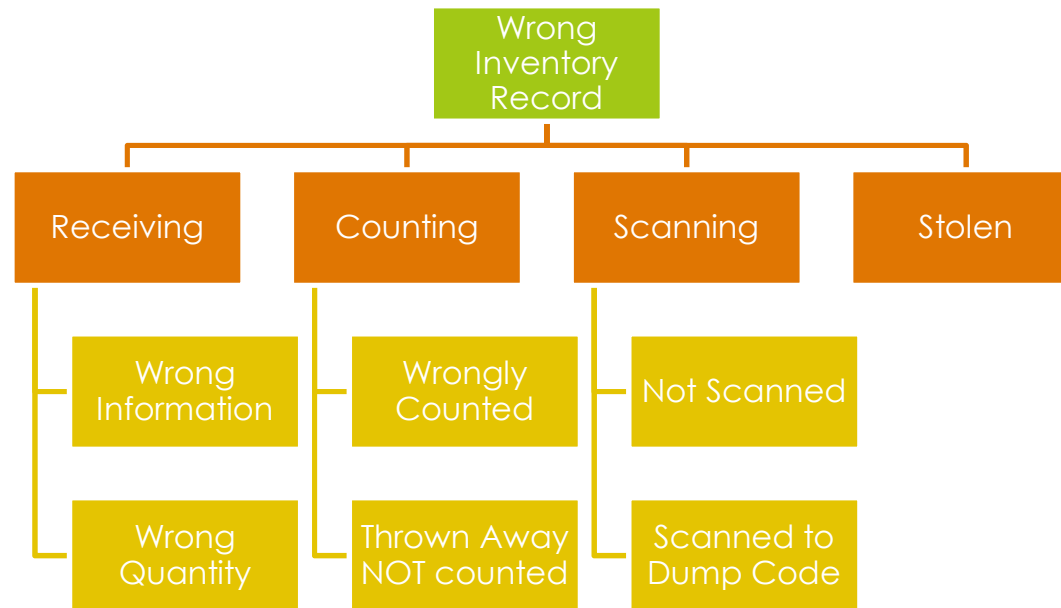
Frustrated  
Shoppers

Extra inventory /  
buffer stock

Lost e-commerce  
sales

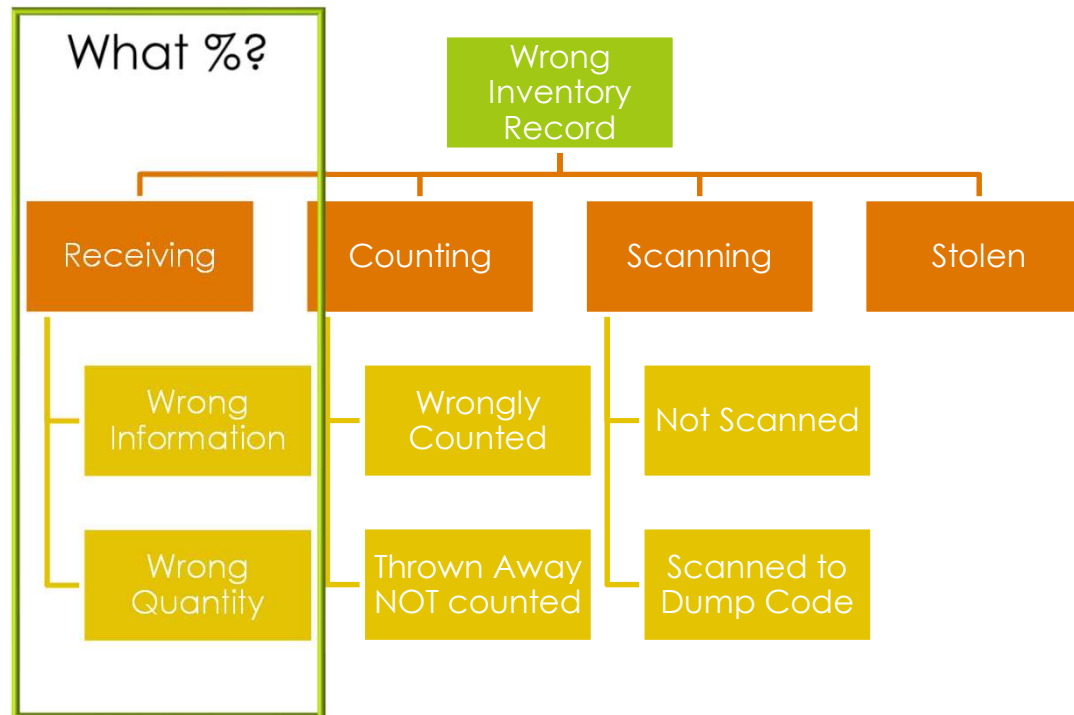
# Drivers of Record Inaccuracy?

Note: For Illustration Purposes Only - Not Intended to Be an Exhaustive Typology



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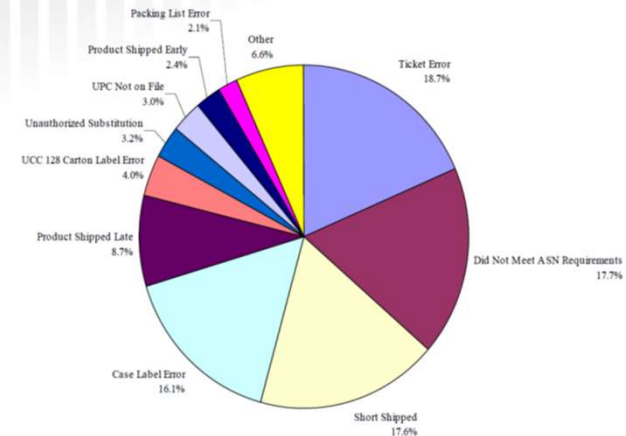
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# Available “evidence”

- ❑ No awareness of peer reviewed studies
- ❑ Anecdotally
  - ❑ ECR suggested 20%
  - ❑ Retailer deep dives – 20%
- ❑ Franchise stores typically index 70 on shrink Vs corporately run stores
- ❑ New store audits – 29% of records wrong before a single transaction
- ❑ De Horatius – 10% of PO's have errors (passed through to stores?)
- ❑ DC's audits typically find MORE inventory than expected

## Receiving “Defects”



One in Ten Purchase Orders Arrives at the DC Incorrect – Errors Cascade Through System Causing Record Inaccuracy

# Research Approaches

## Method 1: Audit

- Select a statistically significant sample of store deliveries
- Conduct audits to identify variance in quantities Vs expected
- Interpret those results in the context of the store's shrink result

## Pro's

- May / May not underline current "best guess" numbers (20%)
- Will help secure the loss prevention team a "seat at the table"

## Con's

- High cost and complexity [to be statistically significant]
- Results will be very context specific / high risk of being not being relevant to many retailer participants
- For the few, the only actionable element may be the "seat at the table" opportunity – no additional value beyond that

# Research Approaches

## Method 2: Benchmarking

- Identify a set of criteria that should contribute to the creation of / the prevention of inventory record inaccuracy at the store.
  - Measures, People, Rewards & Incentives, Process and Technology
- Visit sites to understand the culture, the location, the work processes, meet with key actors and gather outcome and in-process data.
- Create and design instrument to collect via an online survey additional insights and data
- Publish study

# Benchmark Data Points

## Measurement

- How do organisations define and measure “accuracy”? [outcome and in-process measures]
- How do organisations determine the sampling methodology for the different accuracy measures?
- How do organisations operationalise audits / checks? For example, are audits random, 24/7 and covert OR very planned and overt? Are they undertaken internally or by a 3<sup>rd</sup> party?
- How do organisations share and communicate accuracy across the organisation?



# Benchmark Data Points

## People

- How do organisations recruit and retain individuals who hold the key roles that can determine accuracy?
- How do organisations maintain accuracy while at the same time having to flex their capability to meet the changing and fluctuating demand across the year, Christmas, promotions, etc?
- How do organisations engage and communicate to their associates the relevance and importance of accuracy to retailers / to retail stores?

# Benchmark Data Points

## People (cont'd)

- How do organisations incentivize and reward those in receiving, picking, despatch and delivery to promote accuracy?
- How do organisations train and improve the performance of those associates accountable for accuracy?
- How do organisations create distinctions in how they engage, incentivise and reward those associates who manage the accuracy of high-risk items Vs the majority of everyday items?

# Benchmark Data Points

## Design & Work Processes

- How do organisations design and layout their locations, transportation units and vehicles to facilitate accurate work processes?
- How do organisations' work processes help promote accuracy?
  - Receiving Checks
  - Cross Docking – Pick to Zero
  - Delivery Checks / Pick Slot Counts
  - Pre-Despatch Checks
  - Receiving Checks at Stores

# Benchmark Data Points

## Design & Work Processes (continued)

- How do organisations differentiate [if at all] the design and layout their locations, transportation units and vehicles to facilitate accurate work processes on high risk items?
- How do organisations differentiate [if at all] the work processes for high risk items?
- How do organisations manage the flow of information and physical product so that records can be synchronised?

# Benchmark Data Points

## Design & Work Processes (continued)

- How do organisations consider compensation claims and possible sanctions for identified incidents of inaccuracies?
- How does one organisation compensate another other organisation when accuracy errors in the favour of the other are identified and discovered? (Gains and Shortages)

# Benchmark Data Points

## Technology & Data

- How do organisations deploy technologies such as weigh scales, seals, taggants, RFID, video, etc to help promote accuracy?
  - Receiving Checks
  - Delivery Checks / Pick Slot Counts
  - Pre-Despatch Checks
  - Receiving Checks at Stores

# Benchmark Data Points

## Technology & Data (continued)

- How do organisations leverage data captured in the receiving, checking, picking, despatching, receiving and auditing processes to identify patterns and exceptions that could help detect and prevent inaccuracies?
- How do organisations think about future technology choices? Pallet tracking, etc

# Research Proposal - Benchmarking

## Next Steps

- Share research brief with interested CPG and retail organisations.
  - Consider the value of additional context from other sectors
- By next meeting (June 19) to have secured the following:
  - A minimum of five organisations to have agreed to participate in the research and, with appropriate NDA agreements signed with the researchers, committed to supporting site visits, setting up interviews with key managers and to sharing key data such as picking accuracy rates, sampling methodologies, delivery accuracy audits, etc.
  - Letters of intent and indicative agreements from at least fifteen organisations who would be willing to complete an online survey requesting answers to questions on data and current practices. Note: All the data would be shared in confidence, aggregated and anonymised with the names of the individual organisations withheld
- Recruit and get costs for an academic team to lead the research
  - Professor Godsell, of the University of Warwick has been recommended

[https://warwick.ac.uk/fac/sci/wmg/research/supply\\_chain/](https://warwick.ac.uk/fac/sci/wmg/research/supply_chain/)